

### Main features

Input from

- Potentiostatic sensor
- Polarographic selective membraned sensors:
- Total Chlorine gas sensing method

Input from Pt100 3 wires

Ranges: 0/2 PPM - 0/20 PPM - 0/200 PPM autoranging

Dual filter software

Calibration mode: immediate or postponed

Calibration parameters display

Dual set-point and alarm conditions display

Temperature display

Automatic or manual temperature compensation

Isolated output:

- 0/20 mA or 4/20 mA selectable
- programmable input on the span

PID output:

- 0/20 mA or 4/20 mA isolated output
- dual relay for stepping motor

Automatic or manual operation

Alarm on set-point deviation

Continuous/flashing alarm

EEPROM parameters storage

Automatic overload protection and reset

Extractable terminal block

96x96 (1/4 DIN) housing

### Compatible accessories

**SZ 283** Potentiostatic measuring sensor

**SZ 7231** Flow cell for Chlorine and D. Ozone

**SZ 7233** Flow cell for Chlorine / D. Ozone, pH, ORP sensors

**SZ 7251** Autoclean flow cell

**CL 7901** Flow cell and sensor for Free Chlorine

**OZ 7901** Flow cell and sensor for D. Ozone

### Accessories

The controller can be used with all Chlorine, Dissolved Ozone and Chlorine Dioxide sensors and accessories of B&C Electronics.

### Applications

- Ozone generators
- drinking water
- water treatment
- bottling industry
- OEM



### Technical Specifications

in addition to those common in the series 7685

\* **Measuring:** D.Ozone/Residual Chlorine

\* **Measuring cell:** Potentiostatic/Polarographic

#### Polarographic cell

Current: 160 nA/PPM at 20 °C

\* Scales: 0/2.000 PPM - 0/20.00 PPM -0/200.0 PPM

Zero adjustment: ± 200 nA

Cell sensitivity: 12.5/250 %

#### Potentiostatic cell

\* Scales: 0/2.000 PPM - 0/20.00 PPM

Zero adjustment: ± 2 µA

Cell sensitivity: 12.5/250 %

\* **Polarization:** -200 mV (0/-1250 mV)

\* **Filter software 90%RT:** 0.1/20.0 s for small/large variations

#### Temperature

Input: Pt100 3 wires

Measuring and compensation range: -2/52 °C

Manual temperature: -2/52 °C

Resolution: 0.1 °C

Zero adjustment: ± 1 °C

\* Temperature coefficient: 0/4.0 %/°C

#### Regulation:

\* 4/20 mA or 0/20 mA/Stepping motor

\* Motor time: 10/120.0 s

\* Dead time: 0/20.0 s

Manual starting position: 0/100.0 %

#### Set-point: any value in the measuring range

\* Dead band: 0.2/20.0 % (stepping motor)

Proportional band: 0.1/400.0 %

\* Derivative: 0/1200 s

\* Integral: 0/3600 s

#### Option

**091.4143** 9/36VDC power supply

# 7685 Series microprocessor-based

## General information

The **7685 Series** includes all of the most complete and most performing analyzers of B&C Electronics.

They include all of the following measures:

- **pH - ORP**
- **Conductivity - Resistivity**
- **Free residual chlorine, combined and total**
- **Residual chlorine dioxide**
- **Residual dissolved ozone**
- **Dissolved oxygen**
- **Turbidity and Suspended Solids**
- **Residual dissolved Sulfide/Sulfite**
- **ISE**

All controllers are manufactured in robust aluminum enclosures DIN 43700, with front panels in polycarbonate. Their reliability and precision, along with their functionality, make them easy to use in all applications. Finally, 7685 Series guarantees one of the best performance-price ratio in the marketplace.

## Common features

Selectable input.

Input from RTD Pt100 3 wires.

Temperature readout.

Dual filter software.

Operating mode: automatic and manual.

Calibration parameters display.

Set-point and alarm conditions display.

Automatic or manual temperature compensation  
0/20 mA or 4/20 mA programmable isolated output.

Dual set-point with hysteresis, delay and min/max programmable functions.

Min/max and set-points timing alarm relay.

Software: 3 access levels, user friendly, keyboard lock, watch-dog EEPROM parameters storage.

Automatic overload protection and reset.

Extractable terminal blocks.

96X96 (1/4" DIN) housing.

## Technical Specifications

common to all instruments of the 7685 Series

### Temperature

Input: RTD Pt100 2/3 wires

### Set point A and B:

Operation: ON/OFF

Hysteresis: adjustable

Delay: 0.0/99.9 s

\* Function: Max/Min

Relay contacts: SPDT 220V 5 A (resistive load)

### Alarm:

Low/High: adjustable

Delay: 0.0/99.9 s

\* Relay status: activated/deactivated

\* Alarm on max. operating time of set-point A/B: ON/OFF

\* Max operating time of set-point A/B: 0/60 minutes

\* Relay contacts: SPDT 220V 5 A (resistive load)

### Analog output N° 1

\* Input corresponding to the analog output (option 091.371x): selectable

\* Output range: 0-20/4-20 mA (it can be made to represent any segment of the measuring scale)

Response time: 2.5 s for 98%

Isolation: 250Vac

Load: 600 ohm max

### Analog output N° 2 (option 091.371x)

\* Input corresponding to the analog output: selectable

\* Output range: 0-20/4-20 mA (it can be made to represent any segment of the measuring scale)

Response time: 2.5 s for 98%

Isolation: 250Vac

Load: 600 ohm max

### Configuration (\*)

The above parameters indicated by asterisks "\*", may be selected in the Configuration menu

### General Specification

Alphanumeric display: 1 line x 16 characters

Operating temperature: 0/50 °C

Humidity: 95% without condensation

Power supply: 110/220Vac ± 10% 50/60 Hz

Isolation: 4 kV between primary and secondary (IEC 348)

Power: 5VA max.

Terminal block: extractable

Weight: 850 g

Dimensions: 96 x 96 x 155 mm

### Options

**091.701** RS 232 isolated output  
The output sends the data to the serial port of the computer.

**091.404** 24Vac power supply

**091.414X** 9/36VDC power supply

The technical specifications could be changed without notice